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EXAMINER	
KEEFER, MICHAEL E	
ART UNIT	**PAPER NUMBER**
2154	

NOTIFICATION DATE	DELIVERY MODE
01/24/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/774,934	PARKS ET AL.	
	Examiner	Art Unit	
	Michael E. Keefer	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27 and 29-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27 and 29-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 26 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **claim 26**, the "computer-readable medium," in accordance with Applicant's specification, may be carrier waves. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

The amendment filed 11/12/2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The amendment is new matter by deletion.

Applicant is required to cancel the new matter in the reply to this Office Action.

In order to properly overcome the rejection of claim 26 under 35 USC 101, the Examiner suggests that in claims 26, 27, and 29 the phrase "computer-readable medium" be deleted, and replaced with the phrase --volatile and/or non-volatile media-- from the specification, which limits the claims to only the statutory subject matter recited in the specification without causing new matter by deleting the references to carrier waves from the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Roy et al. (US 2002/0062366), hereafter Roy.

Regarding **claims 1-9**, Roy discloses:

1. A client-side auto-rediscovery system, comprising:

a data store configured to store a pairing data that relates a service requesting networked device and a service providing networked device; and (Fig. 7 contains data indicating pairing data between printer names and the network addresses that a requesting device can use to reach them)

a logic configured to determine whether the pairing data should be updated and to selectively update the pairing data. (Fig. 7 is generated upon user request, [0009])

2. The system of claim 1, where the data store comprises one or more of, a file, a memory, and a register. (Fig. 7 is both a HTML file, which also must be stored on a memory)

3. The system of claim 2, where the pairing data comprises one or more of, an IP address, a unique hardware identifier, a unique software identifier, a virtual identifier, and a dynamic identifier. (Fig. 7 discloses IP addresses and printer names)

4. The system of claim 3, where the unique hardware identifier comprises one or more of, a media access control (MAC) address, a globally unique identifier (GUID), an object identifier (OID), and an IP address. (Fig. 7 discloses IP addresses and printer names)

5. The system of claim 4, where the service requesting networked device comprises one of, a computer, a printer, a scanner, and a server. (Fig. 1 discloses HTTP client 15, which is a computer)

6. The system of claim 5, where the service providing networked device comprises one of, a computer, a printer, a scanner, and a server. (Fig. 7 discloses printers)

7. The system of claim 6, where the logic is further configured to generate a uni-cast simple network management protocol (SNMP) GET message to be delivered from the service requesting networked device to the service providing networked device to request a binding data that facilitates determining whether to update the pairing data. ([0041] discloses sending uni-cast SNMP get messages)

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Roy et al. (US 2002/0062366), hereafter Roy.

Regarding **claim 12**, Roy discloses:

A client-side auto-rediscovery system, comprising: means for storing a pairing data that relates a service requesting networked device and a service providing networked device; means for doing weak discovery between the service requesting networked device and the service providing networked device; and means for selectively performing automatic strong discovery to rediscover the service providing networked device based on the weak discovery and selectively updating the pairing data based on the strong discovery. (Abstract. First a UDP based request is broadcasted to the network to receive device information (i.e. a weak discovery), then in the end any remaining nodes are updated using specific SNMP requests. (i.e. a selectively strong discovery))

5. Claims 13,15-29, and 31-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Roy.

Regarding **claims 13 and 15-25**, Roy discloses:

A client-side auto-rediscovery method, comprising: determining whether to perform a process that facilitates relating a first networked device and a second networked device; and performing the process by: selectively requesting from one or more networked devices a binding data that facilitates uniquely identifying a networked device; receiving, in response to requesting the binding data, a message that includes the binding data; and selectively updating a pairing data

that relates the first networked device and the second networked device based, at least in part, on the binding data. ([0025] and [0026] disclose selectively requesting, receiving a response with data, and updating a pairing data with the data received.)

15. The method of claim 13, where determining whether to perform the process is performed when the first networked device requests a service from the second networked device. (Fig. 1, a request from HTTP client 15 to management station 5 causes the process to be performed)

16. The method of claim 13, where determining whether to perform the process includes requesting the binding data from the second networked device via a uni-cast message. ([0041] discloses using a unicast SNMP message)

17. The method of claim 16, where the uni-cast message comprises an SNMP GET request. ([0041] discloses using a unicast SNMP message)

18. The method of claim 17, where the binding data comprises one or more of, a MAC address, an OID, a GUID, an IP address, and a virtual name. ([0026] discloses extracting IP address information from the broadcast response. [0041] discloses retrieving the device name (i.e. a virtual name) from the unicast SNMP request.)

19. The method of claim 13, where the binding data is requested in one or more of, a broadcast message, a multicast message, and a uni-cast message. ([0025

discloses using a broadcast SNMP message, [0041] discloses using a unicast SNMP message)

20. The method of claim 19, where one or more of, the broadcast message, the multicast message, and the uni-cast message comprise one or more of, an SNMP GET request, and an SLP request. ([0025 discloses using a broadcast SNMP message, [0041] discloses using a unicast SNMP message)

21. The method of claim 20, where the binding data comprises one or more of a MAC address, an OID, a GUID, an IP address, and a virtual name. ([0026] discloses extracting IP address information from the broadcast response. [0041] discloses retrieving the device name (i.e. a virtual name) from the unicast SNMP request.)

22. The method of claim 21, where the binding data is received in a second uni-cast message. ([0025 discloses data being returned in an SNMP response, [0041] discloses the data being returned in a SNMP response)

23. The method of claim 22, where the second uni-cast message comprises one or more of, an SNMP GET RESPONSE message, and an SLP message. ([0025 discloses data being returned in an SNMP response, [0041] discloses the data being returned in a SNMP response)

24. The method of claim 13, where the pairing data includes one or more of, an IP address, a MAC address, an OID, a GUID, and a virtual name. ([0026] discloses extracting IP address information from the broadcast response. [0041]

discloses retrieving the device name (i.e. a virtual name) from the unicast SNMP request.)

25. The method of claim 13, where the process is performed by a device driver. (Fig. 1, Device Discovery Task 10 drives the management station to perform the process)

Regarding **claims 26-29**, Roy discloses:

The limitations of claims 26-29 are substantially the same as those recited in claim 13 except for the existence of a computer readable medium. A computer readable medium is clearly implied by management station 5 and HTTP client 15 in figure 1.

Regarding **claims 31-36**, Roy discloses:

The limitations of claim 31 are substantially the same as those recited in claim 13 except that they call for "re-discovering" a second connection and "re-associating" the stored connection. Roy discloses these additional limitations because the devices will be discovered and associated again when the HTTP client makes additional requests to the management device 5.

32. The method of claim 31, where discovering the first connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices. ([0025 discloses using a broadcast SNMP message)

33. The method of claim 32, where client-side associating the stored connection comprises storing one or more of, a unique hardware identifier, a unique software identifier, a virtual identifier, a dynamic identifier, and a uni-cast IP address associated with the service providing networked device. ([0026] discloses extracting IP address information from the broadcast response)

34. The method of claim 33, where validating the stored connection to the service providing networked device comprises sending a uni-cast SNMP GET message to the service providing networked device. ([0041] discloses using a unicast SNMP message)

35. The method of claim 34, where selectively re-discovering the second connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices. ([0025 discloses using a broadcast SNMP message)

36. The method of claim 35, where client-side re-associating the stored connection comprises updating a pairing table. (Fig. 7 would be re-associated based off of the results of a subsequent request from the HTTP client)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roy as applied to claim 13 above, and further in view of Wu (US 5185860).

Roy discloses all the limitations of claim 14 except for a periodic determination of when to perform the address updating process.

The general concept of updating address tables periodically is well known in the art as taught by Wu. (Col. 9, the paragraph describing Fig. 16 discloses waiting for a set period, then re-querying for updated address data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Roy with the general concept of updating address tables periodically as taught by Wu in order to decrease the amount of network traffic caused by a request.

8. Claims 10 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Roy.

Regarding claims 10 and 30, Wu discloses:

A data store configured to store IP and MAC addresses associated with devices on a network. (Col. 8 lines 56-59 discloses a node list which stores the physical and IP addresses for devices on the network (i.e. nodes.)

A second logic configured to produce a multicast (i.e. broadcast) snmp get message and update the data store based upon that information. (Col. 6 lines 33-

46 discuss broadcasting SNMP get messages, Col. 9 lines 12-44 discuss updating the data store)

A first unicast logic to update network connectivity information about the nodes. (Col. 7 line 16 - Col. 8 line 5)

Wu discloses all the limitations of claims 10 and 30 except that the first logic used is SNMP.

Roy discloses a system that uses both broadcast (multicast) and unicast SNMP messages to discover device information about nodes in the network.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Wu and Roy in order to eliminate the need for extra network protocols to be used, thus making the system simpler.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu and Roy as applied to claim 10 above, and further in view of Moetteli (US 2002/0049809).

Wu and Roy disclose all the limitations of claim 10 except that the data store is an XML file. Roy, however, does disclose the data store being a HTML file.

Moetteli teaches that XML is a substitute for HMTL.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wu and Roy with the teaching that XML is a substitute for XML as taught by Moetteli in order to make the data store display more customizable.

10. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roy as applied to claims 1-7 above, and further in view of Janz et al. (US 20020103888), hereafter Janz.

Regarding claims 8-9, Roy discloses

8. The system of claim 7, where the logic is further configured to selectively generate a multicast SNMP GET message to be delivered to a plurality of service providing networked devices to request a binding data that facilitates updating the pairing data. ([0025] discloses sending SNMP broadcast GET messages)

9. The system of claim 8, where the binding data comprises one or more of, a MAC address, a GUID, an OID, an IP address, and a virtual name. ([0026] discloses extracting IP address information from the broadcast response. [0041] discloses retrieving the device name (i.e. a virtual name) from the unicast SNMP request.)

Roy does not disclose that the multicast get message is sent after a desired response is not received from a unicast get message.

The general concept of updating incorrect data discovered through a unicast message using a multicast message is well known in the art as taught by Janz. (See at least the abstract, which teaches "performing a SNMP get call to the recorded network address ... responsive to a mismatch ... The current network address is resolved by ... sending a network multicast request for hardware addresses")

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Roy and the general concept of updating incorrect data discovered

through a unicast message using a multicast message as taught by Janz in order to make sure that the most up to date information is in memory.

Response to Arguments

11. Applicant's arguments filed 11/12/2007 have been fully considered but they are not persuasive.

12. The Examiner will begin by addressing Applicant's repeated contention that the various references do not disclose and/or teach "automatic" discovery. First, nowhere in the body of any of the independent claims does the word "automatic" occur, except for claim 12, where it is used to say that "strong discovery" takes place automatically after "weak discovery", which does happen in Roy as pointed out in the rejections above. The preamble stating that there is an "auto-rediscovery" does not limit the claim, because it does not state what exactly is automatic about what is happening, additionally, even if Applicant's contention that Roy is a user-triggered system is true, the fact is that after the user triggers the discovery, the system automatically performs the steps.

13. Second, the Examiner has explained above in the rejection of claim 26 under 35 USC 101 a possible way to overcome the rejection without causing a new matter by deletion issue in the specification.

14. Applicant contends that Roy does not contain logic to determine whether pairing data should be updated. The Examiner disagrees, because Roy has logic to determine when a user desires an update.

15. Regarding claim 7, applicant contends that Roy does not disclose generating a unicast SNMP get message from the service requesting device to the service providing

device. Applicant's contention regarding "strong discovery" and "weak discovery" is irrelevant to the claim limitations of claim 7, which simply describe sending a unicast SNMP get command sent from a service requestor to a service provider, which is anticipated by Roy as described in paragraph 25.

16. Regarding claim 12, the terms "weak discovery" and "strong discovery" are not special terms to one of ordinary skill in the art, and have been given their broadest reasonable interpretation by the Examiner. Therefore, applicant's arguments that Roy does not anticipate Applicant's disclosure are irrelevant since these limitations are not present in the claim.

17. Regarding claim 16, the limitations which Applicant relies on are not included in the claim. The claim only recites sending a unicast SNMP get message, which Roy anticipates as cited in the rejection of record.

18. Regarding claim 31, including the arguments addressed above in section 11, the Examiner points out that the limitations that Applicant argues are not disclosed by Roy are not in the claim. (i.e. "discovering and reconnecting to previously known devices on its own, without a user-initiated request to do so.)

19. Regarding claims 34-35, the above arguments apply equally to the statements made by Applicant here, specifically regarding the arguments in claim 35 which contend that the combination of claims 34 and 35 are somehow limited in that a unicast get message must be sent before the multicast get message. The examiner disagrees, noting that the combination merely requires that at some point a unicast and multicast get message must be sent.

20. Regarding independent claim 30, which Applicant argues that the references do not perform "client-side" work. This limitation is contained only in the preamble of the claim, and thus is not limiting upon the interpretation of the body of the claim.

21. Regarding claim 11, Roy does disclose a store of IP and MAC addresses. See at least paragraphs 33, 39, and 42, which disclose a listing of information about the devices including the IP and MAC address which is then put into a HTML file.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Keefer whose telephone number is (571)

270-1591. The examiner can normally be reached on Monday through Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 1/16/2007

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER